

The match will be a unique match for a telephone extension, but may not be a unique match for a name. If the match is not unique, system 101 returns the subscriber names of all matching records, and a prompt to select one of them, via API 204, 208 to daemon process 206, at step 432. Upon receiving the matching names and prompt, at step 434, daemon process 206 forwards them along with a return Internet/intranet address of daemon process 206 via Internet/intranet 102 to the return address of terminal 103, at step 436. Browser 104 receives the matching names and prompt and displays them to the user, at step 438. When the user makes a selection of one of the names, browser 104 returns an indication of the selection to daemon process 206 via Internet/intranet 102, at step 440. Upon receiving the selection, at step 442, daemon process 206 forwards it via API 204, 208 to the return address of daemon process 206 at system 101, at step 444. Upon receipt of the selection, at step 446, or if a unique match had been found at step 430, conventional processes of system 101 return the subscriber ID of the selected matching subscriber to daemon process 206 via API 204, 208, at step 448.

Turning now to FIG. 5, daemon process 206 receives the subscriber ID, at step 500, and in response requests the subscriber record for that subscriber ID from system 101, at step 502. Conventional processes of system 101 respond to receipt of the request, at step 504, by retrieving and returning the requested record, at step 506. Upon receipt of the record, at step 508, daemon process 206 logs out of system 101, at step 510, and then proceeds to dynamically generate a Web home page for the subscriber from the received record, at step 512. Illustratively, daemon process 206 creates the subscriber's home page by populating fields 701 of a generic Web home page template 700 (i.e., a form) with the subscriber's information, including the subscriber ID, from the received record. An example of such a generic Web home page template 700 is shown in FIG. 7. Alternatively, subscribers of messaging system 101 may be allowed to create and store, linked to their records in subscriber directory 203, their own custom Web home pages that are functionally equivalent to a populated page template 700, in which case daemon process 206 merely retrieves the identified subscriber's custom home page at steps 502-512. Daemon process 206 then uses the TCP/IP protocol to send the subscriber's home page over Internet/intranet 102 to the return address of terminal 103 which had sent the original request at step 400, at step 514, and then discards the subscriber's home page, at step 516. If and when it receives another request for that subscriber, daemon process 206 will again retrieve the subscriber's record and create the home page anew, thus ensuring that any changes that might have been made to the subscriber's record (e.g., a new active personal greeting) will be reflected in the newly-requested home page.

The subscriber's home page that was sent by system 101 at step 514 is received by browser 104 and is displayed to the user on the display of terminal 103, at step 520. If any of the fields of the home page (e.g., "Today's greeting") include audio information, displaying of the home page on terminal 103 may include an HTML anchor including the "~" meta-character for playback of the audio information to the user. When the user selects the anchor, the audio information is provided by the server via the "~" meta-character processing as described. To send a message back to the subscriber, the user fills out the message fields 702 of the displayed home page, at step 522. Typically, the fields filled out by the user are at least a header field 703 that indicates who the message is from, the subject of the message, the user's return address etc., and a message-body text field 704, as shown in FIG. 7.

When the user is done entering the message, he or she invokes a message-send function, illustratively by pointing to and clicking on a "SEND MESSAGE" virtual button 705 of the displayed home page, at step 524. The "SEND MESSAGE" button 705 is coded with the URL of a CGI script 207 which invokes the send-it process 205 of system 101. In response, browser 104 sends data files of the message fields 702 filled out by the user, the subscriber ID of the intended message recipient, and the return address of terminal 103, as a message to the URL of send-it process 205 at system 101 via Internet/intranet 102, at step 526.

Turning to FIG. 6, HTTP server daemon process 206 receives the message files at system 101, at step 600, and in response to the URL of send-it process 205 invokes send-it process 205 of system 101, at step 602. Upon invocation of send-it process 205, at step 604, daemon process 206 forwards the message files and the subscriber ID of the subscriber who is to receive the message, at step 606. Upon receipt of the message files and subscriber ID from daemon process 206, at step 608, send-it process 205 uses the received information to compose a message in the conventional format of system 101, at step 610. Send-it process 205 then logs into system 101, at step 612, and when system 101 accepts the login, at step 614, send-it process 205 delivers the message to system 101 addressed to the recipient subscriber's ID, at step 616. System 101 accepts the message, at step 618, and delivers it to mailbox 200 of the recipient subscriber, at step 620. System 101 then returns an acknowledgment of successful message delivery to send-it process 205, at step 622. In response to receipt of the acknowledgment, at step 624, send-it process 205 logs off of system 101, at step 626, and system 101 accepts and completes the log off, at step 628. Send-it process 205 then deletes the message files that it had received at step 608, at step 628, creates an acknowledgment message indicative of successful delivery of the message and addressed to the return address of terminal 103, at step 630, and forwards the acknowledgment message to daemon process 206, at step 632. Daemon process 206 responds to receipt of the acknowledgment message, at step 634, by sending a Web page containing the message via the TCP/IP protocol over Internet/intranet to terminal 103, at step 636. Terminal 103 receives the Web page and browser 104 displays it to the user/message sender on the display of terminal 103, at step 638. The acknowledgment message created at step 630 may be a negative acknowledgment, e.g., "This mailbox is full. Message unable to be delivered." The message sender is thus given substantially immediate confirmation of the delivery or non-delivery of his or her message.

Of course, various changes and modifications to the illustrative embodiment described above will be apparent to those skilled in the art. For example, protocols other than the Web may be employed to effect the same type of service. Of specific interest are the FTP protocol, which allows the simple transfer of files between computers, Telnet, which supports terminal emulation and login to host capabilities, and Chat, which is a very simple split-screen two-way typing application allowing two people to type at each other simultaneously. This provides the requisite infrastructure for text and binary file message delivery. An illustrative implementation for each of these protocols is outlined by the following steps:

For FTP:

1. Set up an FTP server with a directory for each extension having a corresponding enabled mailbox. Symbolically link a directory of the extension's corresponding username to the extension directory, to enable addressing of the extension